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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,761

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EXAMINER

HIGGINS, GERARD T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,761	Applicant(s) ZIELKE, EBERHARD	
	Examiner GERARD T. HIGGINS	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Applicant's response filed 11/25/2008 has been entered. Currently claims 5-8 are pending and claims 1-4 and 9 are cancelled. The finality of the previous Office action has been withdrawn in light of the new rejections set forth below.

2. The indicated allowability of claims 5-8 is withdrawn in view of the newly discovered reference(s) to Bürger et al. (5,403,524). Rejections based on the newly cited reference(s) follow.

3. In the previous office action, claims 1-3 and 9 were rejected and claims 5-8 were indicated as allowable. In response, applicants' after-final amendment cancelled claims 1-3 and 9; however, given that claims 5-8 are now rejected using new prior art, applicants' after-final amendment has not been entered in order to give applicants an opportunity to respond to the previous rejection of claims 1-3 and 9.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Bürger et al. (5,403,524).

With regard to claims 1 and 5-8, Bürger et al. disclose a method of making a mixed PTFE component. They treat one portion of PTFE, which reads on applicant's first granules or first subvolume, by degrading it with radiation (col.2, lines 40-43, col. 3, lines 15-29) and then they subsequently mix this first portion with a second untreated portion of PTFE, which reads on applicant's second granules or second subvolume (col. 3, line 67 to col. 4, line 5). The type of radiation may be electron rays (col. 3, lines 15-29), which reads on applicant's beta radiation. With regard to the preamble "for producing an insulating material piece for an electrical high-voltage device," the Examiner deems this to be an intended use limitation, which is not dispositive of patentability. The mixture may then be sintered and/or shaped, such as by extrusion (col. 4, lines 20-25). The mixture of PTFE subvolumes reads on applicants' insulating material piece because PTFE will inherently be insulating.

With regard to the limitation that the treatment of the first granules is "for providing an increased electrical conductivity," given the fact that Bürger et al. disclose a treatment method identical to that of applicant (i.e. treating with beta radiation/electrons), it is clear to the Examiner that the treatment step of the first granules of Bürger et al. would inherently produce a first subcomponent having increased conductivity.

With regard to claim 2, given the fact that the entire insulating material piece of Bürger et al. is comprised of a mixture of said first and second subcomponents described above, said mixture will inherently lie at least partially on the surface of the insulating material piece.

With regard to claim 3, the radiation treated first subvolume represents from 1 to 50% of the insulating material piece (col. 3, lines 42-48). This means the percentage of the non-radiation treated subcomponent will be 50% or greater (col. 6, lines 23-28). This means the first subcomponent is embedded in the second subcomponent.

With regard to claim 9, this claim is an intended use claim drawn to the limitation “for an electrical high-voltage device” seen in claim 1. The Examiner once again notes that intended use limitations are not dispositive of patentability, and therefore the Examiner deems that the article of Bürger et al. meets the limitations of this claim.

Claim Rejections - 35 USC § 102/103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zielke (WO 99/65128), which is the international application for the US national stage patent 6,627,831, which is used herein as an English translation.

The Examiner notes the definition of the word “mixture” as seen on Merriam-Webster Online: “2: a product of mixing.”

The Examiner notes the following product-by-process limitation:

- the requirement in applicant's claim 1 that the part is made from mixing first and second granules, wherein said first granules have an increased electrical conductivity.

In order to be an "insulating material piece" as is claimed the mixture must have been "shaped so as to produce an insulating material piece" (applicant's specification page 4). This therefore means the claims are not drawn to a mixture of subvolumes, but rather a shaped piece derived from the claimed mixture of subvolumes. This is the very essence of a product-by-process claim. It has been held that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." Please see MPEP 2113 and *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Any shaped piece that has different regions of conductivity will be held to anticipate or render obvious applicant's claims.

Zielke discloses an "insulating component, which is at least partially composed of plastic, for high-voltage systems, in particular for use in gas-insulated systems, whose conductivity is increased in the region of its surface," which discloses a high voltage power breaker (col. 1, lines 9-12). Zielke further discloses parts **9** and **10** of Figure 1. Part **9** is an "insulating component...which is normally composed of polytetrafluoroethylene" (col. 3, lines 26-28). In order to prevent displacement currents

and flashovers, the region of the end face (surface sites) **10** was treated with beta and gamma rays, “which leads to a reduction in the electrical resistance in the region which is subjected to irradiation” (col. 3, line 43 to col. 4, line 5). These limitations anticipate or render obvious applicant’s claims 1 and 2 because the article of Zielke would be indistinguishable from the article claimed by the process steps in applicant’s claim 1.

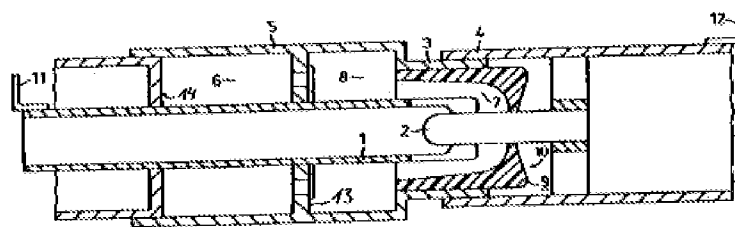


FIG 1

Zielke is silent with respect to the specific ratio of the treated component compared to the untreated component; however, Zielke discloses at col. 4, lines 6-17 that the penetration depth and intensity of the radiation can be varied in order to control the depth of the region of reduced electrical resistance and the extent of molecular change within the region, respectively. The Examiner deems that the insulating part of Zielke inherently comprises treated subvolumes embedded (< 50% in amount compared to the total amount of treated and untreated subvolumes) in the untreated subvolumes, since in order to still be considered an insulating material piece it would necessarily contain more insulating components (2nd subvolumes) than conductive components (1st subvolumes), and hence the device anticipates applicant's claim 3.

Alternatively, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the depth and intensity of the beta and gamma

Art Unit: 1794

radiation to produce an insulating part having the proper amount of electrical resistance for applicant's intended use.

It has also been held that "[o]nce the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product." Please see MPEP 2113 and *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). The Examiner has set forth a *prima facie* case that the article of Zielke would be the same or similar to the presently claimed article.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-3 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,627,831.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the resultant insulating piece is comprised of two subvolumes, including a first subvolume that has an increased conductivity, which partially lies on the surface of the insulating piece. The Examiner deems that the insulating part of Zielke inherently comprises treated subvolumes embedded (< 50% in amount compared to the total amount of treated and untreated subvolumes) in the untreated subvolumes, since in order to still be considered an insulating material piece it would necessarily contain more insulating components (2nd subvolumes) than conductive components (1st subvolumes); further, both subvolumes may be made of PTFE.

The pending claims are a broader than the conflicting claims, and therefore encompass the difference present in the copending claims. The difference is that the first subvolume of the copending claims is treated with beta or gamma radiation.

Response to Arguments

10. Applicant's arguments with respect to claims 5-8 have been considered but are moot in view of the new ground(s) of rejection.

Upon further search the Examiner has found various new references that teach radiation treated PTFE. The Examiner has applied a reference that most closely matches applicant's invention. Just to repeat, the Examiner deems the limitation regarding the increased conductivity to be inherent in the device of Bürger et al.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Examiner has cited additional patents relating to radiation treated PTFE to alter properties of the material as a whole. Also the Examiner has cited a journal article (Berkley) from 1979 related to treating PTFE with electron beams to change conductivities.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is (571)270-3467. The examiner can normally be reached on M-F 9:30am-7pm est. (1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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